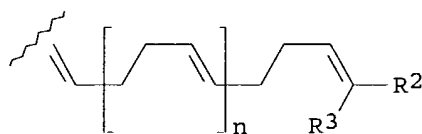
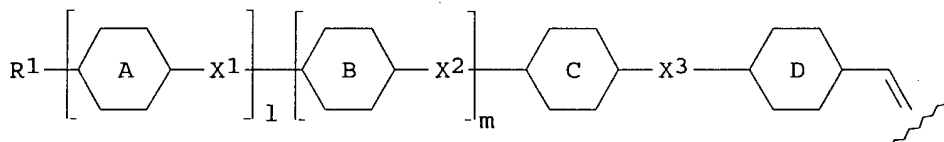


(liq. **cryst.** 3,4,5-tricyanophenyl derivs. with high dielec. anisotropy as dopants in liq. **crystal** media)

L6 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1999:250260 CAPLUS
 DN 130:330642
 ED Entered STN: 23 Apr 1999
 TI Trans-polyene-containing **liquid crystalline** compounds, their compositions, and **liquid crystal** display devices using them
 IN Kato, Takashi; Onishi, Noriyuki
 PA Chisso Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 35 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C07C013-19
 ICS C07C022-00; C07C022-04; C07C023-18; C07C025-24; C07D213-30; C07D213-79; C07D239-26; C07D239-34; C07D241-12; C07D241-18; C07D253-06; C09K019-08; C09K019-42
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 23, 75
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11106357	A2	19990420	JP 1997-284456	19971001
PRAI	JP 1997-284456		19971001		
OS	MARPAT 130:330642				
GI					



AB **Liq. **cryst.**** compds. have trans-polyenes in the side chains. Also claimed are trans-polyene-containing **liq. **cryst.**** compds. I [R1 = H, cyano, halo, C1-20 linear or branched (halo)alkyl in which non-neighboring CH2 groups may be substituted with O or CH:CH groups; R2 = H, halo, C1-9 alkyl; R3 = H, halo; the rings A, B, C, and D indicate 1,4-phenylene, trans-1,4-cyclohexylene, bicyclo[1.1.0]butane, bicyclo[2.2.2]octane, cyclobutane, or **spiro** [3.3]**heptane** rings in which H atoms may be substituted with halogens and C atoms may be substituted with N or O atoms; l, m = 0, 1; n = 1-5]. **Liq. **cryst.**** compns. containing the trans-polyene compds. and Ph compds., and **liq. **crystal**** display devices using the compns. are also claimed. The **liq. **cryst.**** polyene compds. show high elastic constant ratios, low viscosity, and good compatibility with other **liq. **cryst.**** compds.
 ST **liq **crystal**** display trans polyene prepn

IT **Liquid crystals**
(nematic; preparation of trans-polyene compds. for liq. crystal display device)

IT **Liquid crystal displays**
(preparation of trans-polyene compds. for liq. crystal display device)

IT 223788-43-0
RL: DEV (Device component use); USES (Uses)
(preparation of trans-polyene compds. for liq. crystal display device)

IT 223790-18-9
RL: DEV (Device component use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(preparation of trans-polyene compds. for liq. crystal display device)

IT 223788-44-1 223788-45-2 223788-47-4 223788-50-9 223788-53-2
223788-56-5 223788-59-8 223788-61-2 223788-63-4 223788-65-6
223788-67-8 223788-69-0 223788-71-4 223788-73-6 223788-75-8
223788-77-0 223788-79-2 223788-81-6 223788-83-8 223788-85-0
223788-87-2 223788-89-4 223788-90-7 223788-91-8 223788-92-9
223788-93-0 223788-94-1 223788-95-2 223788-96-3 223788-97-4
223788-98-5 223788-99-6 223789-00-2 223789-01-3 223789-02-4
223789-03-5 223789-04-6 223789-05-7 223789-08-0 223789-11-5
223789-14-8 223789-17-1 223789-18-2 223789-19-3 223789-20-6
223789-21-7 223789-22-8 223789-23-9 223789-24-0 223789-25-1
223789-26-2 223789-27-3 223789-28-4 223789-29-5 223789-30-8
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223789-66-0 223789-67-1 223789-68-2 223789-69-3 223789-70-6
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223789-81-9 223789-82-0 223789-83-1 223789-84-2 223789-85-3
223789-86-4 223789-87-5 223789-88-6 223789-89-7 223789-90-0
223789-91-1 223789-92-2 223789-93-3 223789-94-4 223789-95-5
223789-96-6 223789-97-7 223789-98-8 223789-99-9 223790-00-9
223790-01-0 223790-02-1 223790-03-2 223790-04-3 223790-05-4
223790-06-5 223790-07-6 223790-08-7 223790-09-8 223790-10-1
223790-11-2 223790-12-3 223790-13-4 223790-14-5 223790-15-6
223790-16-7 223790-17-8
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(preparation of trans-polyene compds. for liq. crystal display device)

IT 75-05-8, Acetonitrile, reactions 867-13-0, Ethyl diethylphosphonoacetate
2622-05-1, Allylmagnesium chloride 223790-19-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of trans-polyene compds. for liq. crystal display device)

IT 223790-20-3P 223790-21-4P 223790-22-5P 223790-23-6P 223790-24-7P
223790-25-8P 223790-26-9P 223790-27-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of trans-polyene compds. for liq. crystal display device)

TI **Liquid-crystalline** fluoroalkenyl compounds, their compositions, and **liquid-crystal** displays
 IN Onishi, Noriyuki; Matsui, Shuichi; Miyazawa, Kazutoshi; Sekiguchi, Yasuko; Nakagawa, Etsuo
 PA Chisso Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 52 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C07C013-28
 ICS C07C015-50; C07C022-00; C07C022-08; C07C025-24; C07C043-192; C07C043-225; C07C069-753; C07C069-76; C07C069-773; C07C255-50; C07C255-55; C07D213-26; C07D213-61; C07D213-89; C07D239-26; C07D239-28; C07D319-06; C07F007-08; C09K019-12
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 75

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09104644	A2	19970422	JP 1995-287917	19951009
	WO 9713821	A1	19970417	WO 1996-JP2878	19961002
	W: KR, SG, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 854899	A1	19980729	EP 1996-932809	19961002
	EP 854899	B1	20010110		
	R: DE, FR, GB				
PRAI	JP 1995-287917	A	19951009		
	WO 1996-JP2878	W	19961002		
OS	MARPAT 127:42229				
AB	R1(AX1)m(BX2)nCX3DR2 [I; R1-2 = cyano, halo, C1-20 alkyl, C1-20 haloalkyl, (CH2)pCX4: CX5(CH2)qCX6: CX7X8, in which arbitrary CH2 may be replaced with O, CH:CH, C.tplbond.C and arbitrary H may be substituted with F; X1-3 = CH2CH2, CO2, OCO, CH:CH, C.tplbond.C, (CH2)4, CF2O, OCF2, CH2O, OCH2, direct bond; A, B, C, D = 1,4-C6H4, 1,4-cyclohexylene, bicyclo[1.1.0]butane, bicyclo[1.1.1]pentane, bicyclo[2.2.2]octane, cyclobutane, spiro[3.3]heptane whose C may be replaced with N, O, Si; X4-8 = H, halo, C1-5 alkyl and at least one = halo; m, n = 0, 1; , q = 0-5] are claimed. Liq.-crystal compns. containing ≥ 1 I and liq.-crystal display devices using the compns. are also claimed. Secondary components for liq.-crystal compns. containing ≥ 1 I as the primary components are also mentioned. I show high elastic constant ratio K33/K11 and low viscosity, and provide compns. showing high-speed response.				
ST	fluoroalkenyl compd liq crystal display				
IT	Liquid crystal displays (liq.-crystal compns. containing fluoroalkenyl compds. with high elastic constant ratio and low viscosity for displays)				
IT	190431-36-8P	190431-39-1P			
	RL: DEV (Device component use); PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation); USES (Uses) (preparation of fluoroalkenyl compds. with high elastic constant ratio and				
low	viscosity for liq.-crystal displays)				
IT	189387-84-6P	190431-33-5P	190431-34-6P	190431-35-7P	190431-38-0P
	RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (preparation of fluoroalkenyl compds. with high elastic constant ratio and				
low	viscosity for liq.-crystal displays)				
IT	359-37-5, Iodotrifluoroethene	23391-99-3, [1,1'-Bicyclohexyl]-4,4'-dione			
	33884-43-4, 2-(2-Bromoethyl)-1,3-dioxane	190431-32-4	190431-37-9		
	RL: RCT (Reactant); RACT (Reactant or reagent)				